

SET 10

Batch ID -2018/2

(Core Java - For Loop)

1. Write a program to get the following output

```
1
2 3
4 5 6
7 8 9 10
11 12 13 14 15
```

2. Write a program to get the following output

```
1
33
555
7777
99999
```

3. Write a program to get the following output

```
2
44
666
8888
10101010
```

4. Write a program to get the following output

```
*      *
*      *
*      *
*
*      *
*      *
*      *
```

5. Write a program to get the following output

```
*****
*      *
*      *
*      *
*****
```

6. Write a program to get the following output

```
1
232
34543
4567654
567898765
```

7. Write a program to get the following output

```
1      1
12     21
123    321
1234   4321
12345  4321
```

8. Write a program to get the following output

```
543212345
4321234
32123
212
1
```

9. Write a program to find the sum following series

$$1 - \frac{1}{3} + \frac{1}{6} - \frac{1}{10} + \frac{1}{15} - \dots$$

10. Write a program to find the sum following series

$$1! + 2! + 3! + \dots + n!$$

11. Write a program to find the sum following series

$$1 - \frac{1}{2} + \frac{1}{3} - \frac{1}{4} + \frac{1}{5} - \frac{1}{6} + \dots$$

12. Write a program to find the sum following series

$$\frac{1}{2^2} + \frac{1}{4^2} + \frac{1}{8^2} + \frac{1}{16^2} + \frac{1}{32^2} + \dots$$

13. Write a program to find the sum following series

$$1 + \frac{1}{2} + \frac{1}{3} + \frac{1}{5} + \frac{1}{7} + \frac{1}{11} + \frac{1}{13} + \frac{1}{17} + \frac{1}{19} + \dots + n$$
